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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

YAO, SAM CHAUN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/24/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/774,177

Applicant(s)

DROUX, MICHEL

Examiner

Sam Chuan C. Yao

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 is indefinite, because it is unclear what is intended by "... *are formed of reinforcing filaments of at least one of a reinforcing material and an organic material*" (emphasis added). Should it not be implicitly understood that a reinforcing material is used in a layer which is formed of reinforcing filaments? The limitation "*reinforcing material*" would appear to be redundant.

Claim 20 is indefinite, because it is unclear how this claim further limit claim 18.

Claim 18 already requires the strands in 1<sup>st</sup> and 2<sup>nd</sup> layers to be filaments. Should it not be understood that the strand must be continuous? This claim also appears to be redundant.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

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(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bolen et al (US 3,936,558).

Note: these claims only require positioning "*said at least one first layer*" over "*said at least one second layer*", whether they are in or not in contact with each other. In other words, the claims are presently recited do not preclude an intervening layer between a 1<sup>st</sup> layer and a 2<sup>nd</sup> layer. In addition, none of these claims also preclude opening both the 1<sup>st</sup> and 2<sup>nd</sup> layers.

Bolen et al discloses a glass reinforcing filamentary multi-layer mat, the mat comprises "*at least two layers of strands of continuous filaments*" and organic binder particles in each layer, one of the layers are "*dispersed to form a mesh size*" which entraps binder particles; while other layers have mesh size which do not necessarily entrap binder particles; the resultant filamentary mat has "*variable mesh sizes or characteristics by selectively filamentizing strands or a layer of strands already in place in a mat-like collection of strands.*" Bolen further teaches forming a mat from successive layers of strands of continuous filaments; the strands in one of the layers "*are opened to separate the filaments of the strands*" (emphasis added; abstract; col. 3 lines 31-39; col. 6 lines 9-20; claim 1). Although not explicitly disclosed, the multi-layer mat taught by Bolen et

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al must inherently have a filamentary dispersion gradient, because as noted above, the mat has a *"variable mesh size"*. In fact, Boolean also teaches that strands in "a bottom-most layer" has fewer filaments per strand and *"more strands per unit area"* than adjacent and upper layer to the bottom-most layer (col. 7 line34 to col. 8 line 19).

**In order to define over the teachings of the Bolen et al patent, it is suggested for Applicant to amend all independent claims to require the following limitations: wherein *"said at least one second layer of at least one strand formed of filaments"* are at least partly opened by subjecting the at least one second layer to a opening device having a bottom vertical wall transverse from a machine direction for continuously flowing a screen or cascade of liquid binder into the at least one second layer. Support for this limitation is found on figure 1 and page 15 of the original specification.**

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 17-21 have been considered but are moot in view of the new ground(s) of rejection. In light of a new ground of rejection, the present office action is made NON-FINAL.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (703)

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308-4788. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 305-7718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

scy  
April 21, 2003